

Canada Participated in the Past IPYs...



Upper atmosphere study techniques in the IGY: rocket launch at the Churchill Rocket Range, an important IGY site.

- **IPY 1: 1882-1883; 11 nations**
 - Polar expeditions driven by scientific research for the first time
- **IPY 2: 1932-1933; 40 nations**
 - Breakthroughs in auroral and upper atmospheric science related to radio communications, navigation, and weather forecasting
- **IPY 3 (International Geophysical Year): 1957-1958; 67 nations**
 - Unprecedented exploration and discoveries
 - Launch of the space age (10 satellites)
 - Laid foundations for next decades of polar research
 - signing of Antarctic Treaty
 - establishment of Canadian Polar Continental Shelf Project (PCSP)

...which led to tremendous advances and benefits

IPY Timelines

Phase I: Build up to IPY (2005, 2006)

Collaboration & Partnership Building
Call for Science and Research proposals
Planning & Committee formation
Review of science and research proposals
Assessment of logistics requirements

Phase II: IPY Activities (2007 to 2009)

The Official Observation Period
Training, Capacity Building, Communication & Outreach
Data systems development
Ensure safety & security during period of increased international activity in North

Phase III: Legacy of IPY (2010+)

Data interpretation, integration, management and access
Unprecedented access to data and information
Communication and Outreach
Reporting and research/knowledge translation



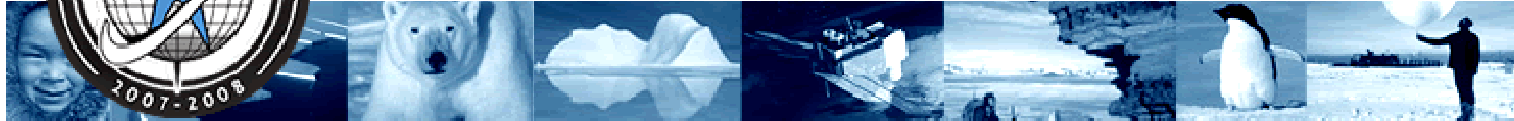
A photograph of a polar bear walking across a snowy or icy landscape. The bear is the central focus, moving from left to right. Its fur is white and appears thick. The background is a vast, flat, white expanse, likely a tundra or ice field. The lighting is bright, suggesting a sunny day.

International Polar Year

The international side of the initiative



International IPY Program



Many nations involved in an intensive period of research and related activities focused on the Arctic and Antarctic regions

Research Themes

- **State** of the polar environment
- **Change** in the polar regions
- Polar-global **linkages**
- **New frontiers**
- Polar regions as **vantage points**
- **Human dimension**

Legacy

- Research **Infrastructure**
- Research **Capacity**
- New generation of **scientists**
- **Data**
- **Communication**

IPY website:
www.ipy.org

Sets the stage for the Canadian IPY Program

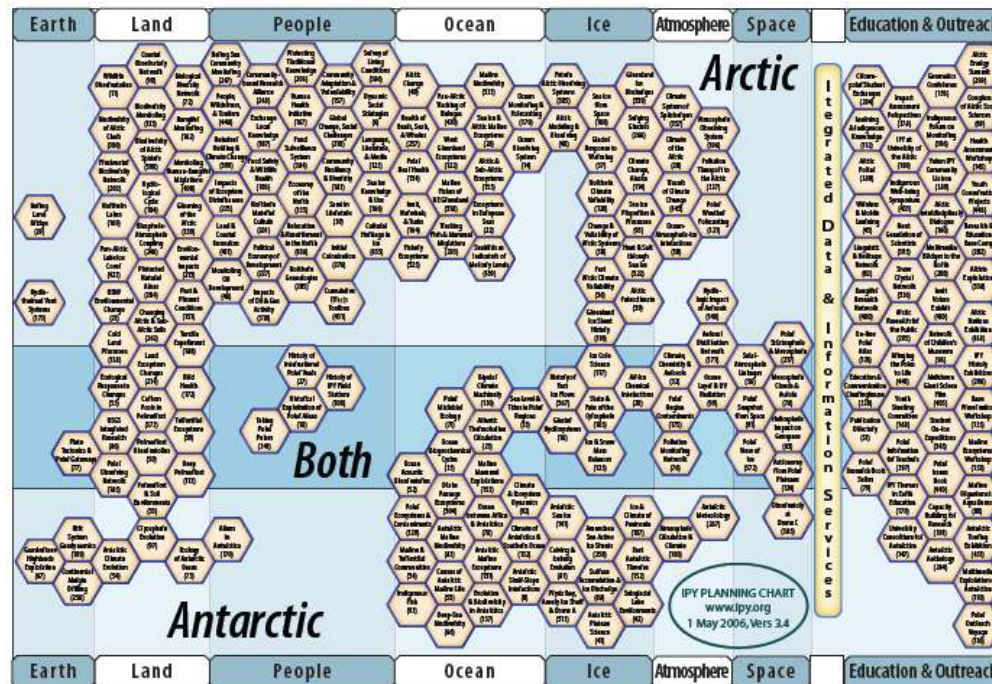
International Process

Call for Expressions of Intent

- Jan – Nov 2005 (>1200 submitted)

Call for Full Proposals

- Jun 30 & Sept 30/05 and Jan 31/06 (~420 submissions)
- Grouped together into ~160 science and research proposals and ~50 education and outreach proposals



A photograph of a polar bear walking across a snowy, icy landscape. The bear is the central focus, moving from left to right. Its fur is a mix of white and light brown. The background shows a vast, flat, snow-covered area under a bright sky. The text "International Polar Year" and "The initiative in Canada" is overlaid in a bold, dark blue font. A thin orange horizontal line is positioned below the text.

International Polar Year

The initiative in Canada

IPY: Unparalleled Opportunity for Canada



- To demonstrate:
 - leadership in an international research program, using the resources and infrastructure of many nations to advance knowledge & understanding
 - enhanced observational systems, technologies, facilities and research networks and an unprecedented degree of access to the data and information for Canada's Arctic regions
- To build much-needed capacity for northern research and polar science, including training for the next generation of northern scientists
- To gain valuable data and information on state of the polar environment and changes in the polar regions for the benefit of northern communities
- To promote the human dimension of the IPY program
- To advance Canada's broad interests in northern and polar regions

The Human Dimension of IPY



What it means for Canada:

- Northern peoples and organizations as partners in IPY
- Recognition of the rights, aspirations and priorities of all northern peoples
- A science and research focus on:
 - factors that contribute to the well-being of circumpolar peoples and communities
 - impacts of global change on northern societies
 - the unique contributions of northern peoples to global cultural diversity and citizenship
- Consultation and regional, social-cultural review of proposals
- Results with tangible benefits for Northerners



Canadian IPY Program



HOST - PARTICIPANT - LEADER

Characteristics:

- Innovative, high-quality and relevant
- Cross-sectoral
- Interdisciplinary & integrative
- Territories and northern provinces
- Inclusive of northerners

Legacy:

- enhanced capacity for polar science
- valuable data and information
- improved northern research networks
- trained northern scientists
- communications tools



Widespread interest in IPY

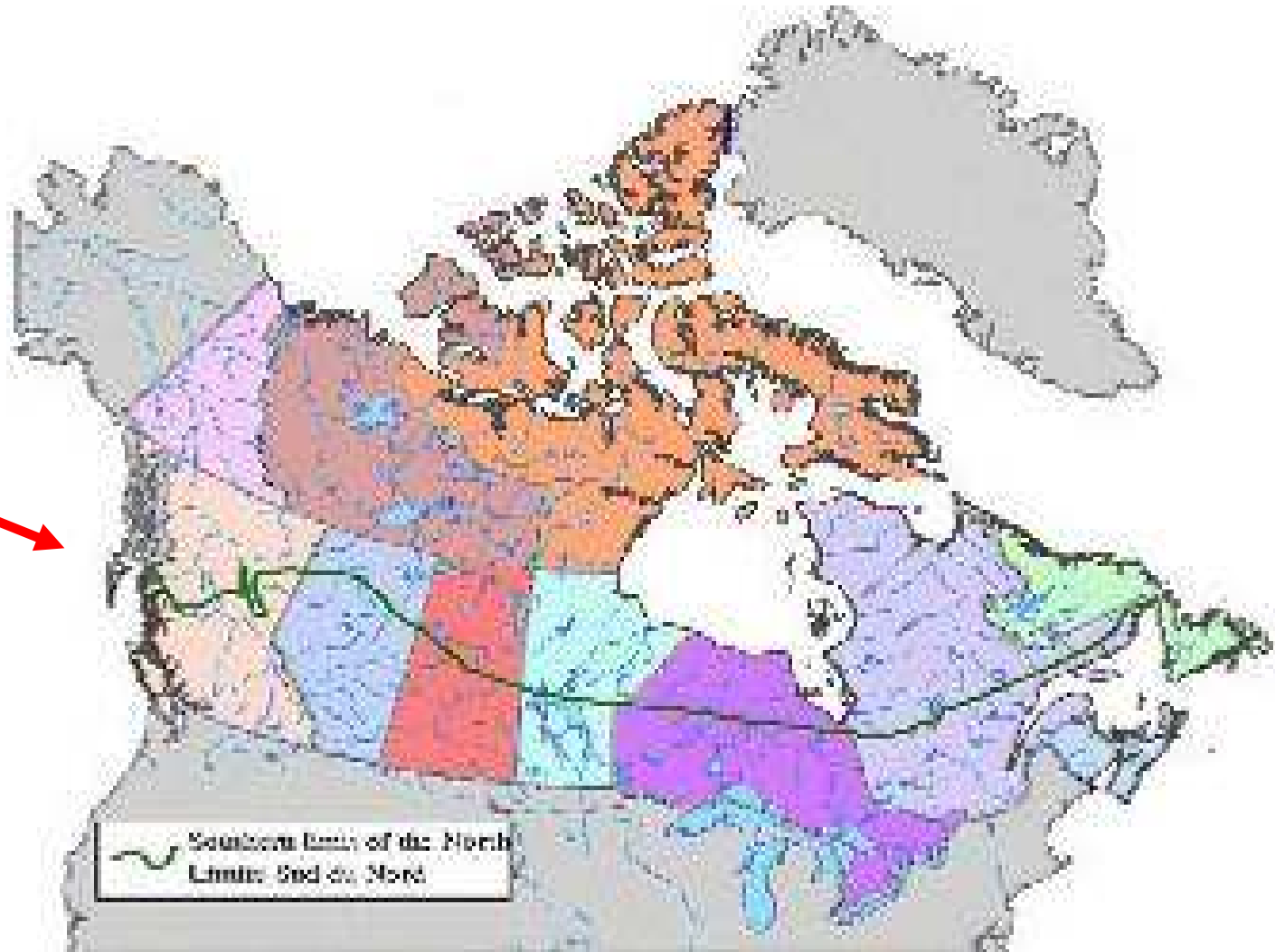
National coordination, by IPY National Committee, and Canadian IPY Secretariat

Funding for initiative through various sources

www.ipycanada.ca

Geographic Focus of IPY in Canada

Approximate
southern limit



Northern Community Involvement

- Community information meetings hosted by Canadian Polar Commission and others
- Communities involved in IPY in various ways (i.e. research team members and leaders, logistics, northern nodes, subcommittee members, proposal reviews, training & education opportunities, etc.)
- Benefits for communities:
 - Improved access to information and answers to questions on issues of importance for the North
 - Opportunity to influence research in the North
 - Enhanced capacity and opportunities for the next generation of youth
 - Economic impacts of increased local activity





International Polar Year

The initiative in Nunavut



IPY Northern Nodes



IPY Northern Nodes

Currently hosted by 4 Northern Organizations on an interim basis – act as points of contact, facilitate community involvement and assist researchers

Purpose and Role of the Nunavut Node:

- Establish point of contact in key northern regions
- Facilitate integration of northern communities and organizations in proposed IPY research
- Develop regional networks and act as a liaison
- Information to researchers on licences, permit requirements in the northern regions

Why IPY of interest to Nunavut?

- Uniquely situated to be host, participant and leader
- IPY presents an opportunity:
 - Partnerships and collaboration
 - Capitalize on the rare opportunity for cooperative large-scale research, using the resources and infrastructure of many nations
 - Training & capacity building
 - Lay the groundwork for future research activity
 - Economic spin-offs
- Data and Information
 - Understanding impacts and adapting to changing climate
 - Improving health and well-being of Nunavummiut

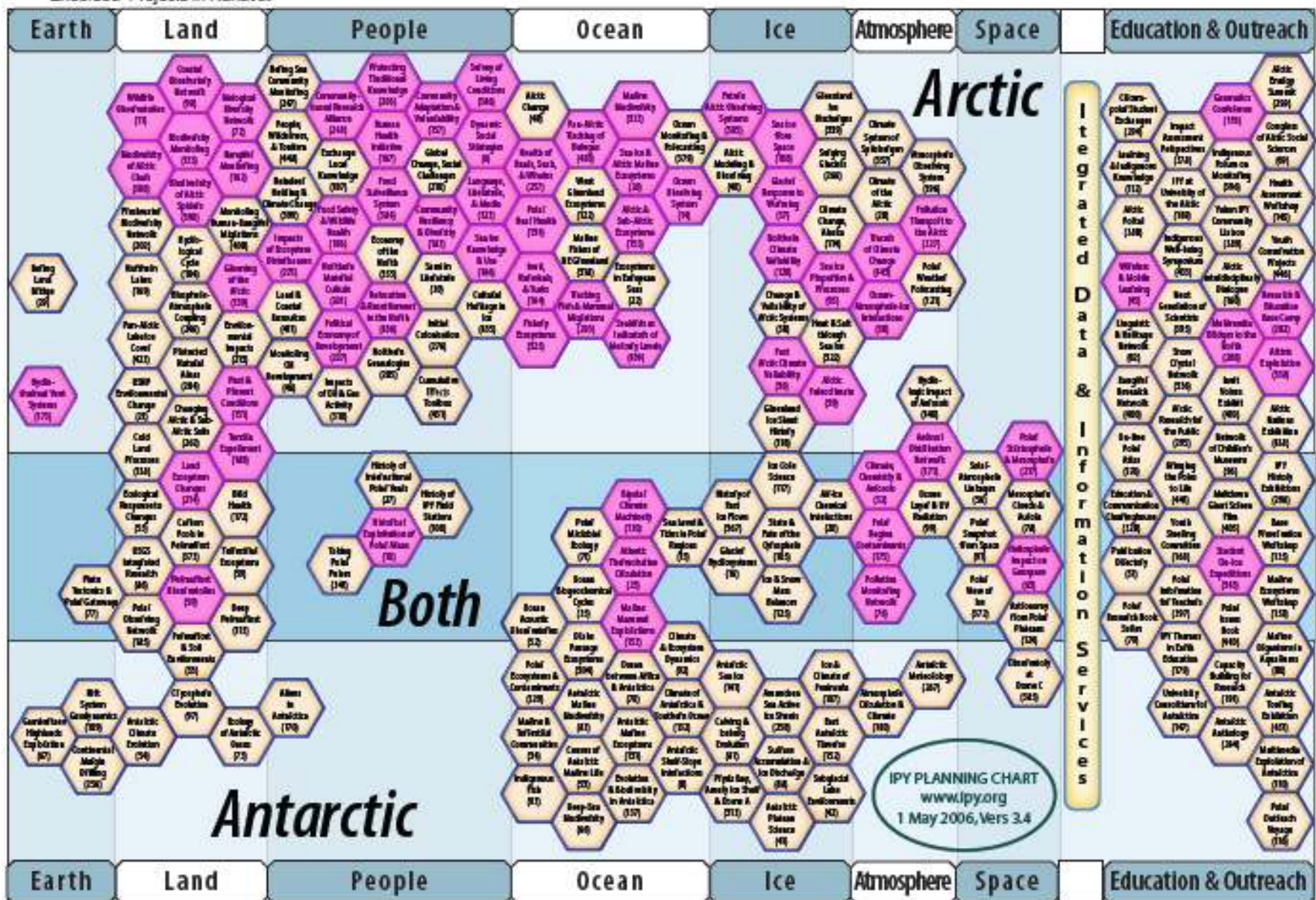


Challenges of IPY in Nunavut

- Increased demands for:
 - Licenses and Permits
 - Local staff and project team members
 - Consultation
 - Infrastructure and logistics support
 - Polar Continental Shelf Project
 - Accommodation
 - Transportation (inclu. aircraft, ships, etc.)
 - Access to research stations
 - Fuel availability
 - Search and rescue, health and safety services
- Perception of research and researchers
- Meaningful involvement
- Effective lines of communication with all relevant individuals and organizations
- Making use of data and information



Internationally Endorsed IPY Projects with Activity in Nunavut



“Cells” shown in purple indicate endorsed projects that involve activity in Nunavut (see www.ipycanada.ca)

Geographic Distribution of Proposed Projects

Government of Canada Program for IPY
Call for Proposals Provincial/Territorial Breakdown

